

**IN THE CLAIMS:**

1. (Currently amended) An analytical kit comprising ~~the reagent A, reagent B and analytical device specified below in combination, wherein the reagent A and B may be contained in one and the same system or may occur each independently:~~

i) ~~an~~A analytical device comprising a passage allowing a liquid to flow through the same, ~~as~~ formed by bonding together a first member having a groove, 1  $\mu$ m to 5 mm width and 1  $\mu$ m to 750  $\mu$ m depth in cross-section, and a second member ~~capable of~~ covering the groove, ~~and together with~~ a first nucleic acid (N1) having an arbitrary base sequence ~~and~~as immobilized in a capturing zone provided in the passage on the first member and/or second member prior to bonding the first member and second member together;

ii) aA reagent A containing (1) a conjugate (N2-L1) composed of a second nucleic acid (N2) having a sequence at least complementary to the base sequence of the first nucleic acid ~~(N1) immobilized in the capturing zone of the analytical device~~ and (2) a first ligand (L1) capable of specifically binding to a biological substance (O) to be assayed;

iii) aA reagent B containing a conjugate (L2-M) resulting from binding of a marker (M) to a second ligand (L2) capable of specifically binding to the biological substance (O) to be assayed.

2. (Currently amended) An analytical kit comprising ~~the reagent A, reagent B', reagent C and analytical device specified~~

~~below in combination, wherein two or more of the reagents A, B' and C may be contained in one and the same system or the reagents may occur each independently:~~

i) ~~an~~aAn analytical device comprising a passage allowing a liquid to flow through the same, ~~as~~ formed by bonding together a first member having a groove, 1  $\mu$ m to 5 mm width and 1  $\mu$ m to 750  $\mu$ m depth in cross-section, and a second member ~~capable of~~ covering the groove, ~~and together with~~ a first nucleic acid (N1) having an arbitrary base sequence ~~and~~as immobilized in a capturing zone provided in the passage on the first member and/or second member prior to bonding the first member and second member together;

ii) aA reagent A containing a conjugate (N2-L1) composed of (1) a second nucleic acid (N2) having a sequence at least complementary to the base sequence of the first nucleic acid ~~(N1) immobilized in the capturing zone of the analytical device~~ and (2) a first ligand (L1) capable of specifically binding to a biological substance (O) to be assayed;

iii) aA reagent B' containing a second ligand (L2) capable of specifically binding to the biological substance (O) to be assayed; and

iv) aA reagent C containing a conjugate (L3-M) composed of a third ligand (L3) capable of specifically binding to the second ligand (L2) and a marker (M).

3. (Currently amended) An analytical kit ~~comprising the reagent A and analytical device specified below in combination~~

~~and~~ containing no marker and comprising:

i) ~~an~~A analytical device comprising a passage allowing a liquid to flow through the same, ~~as~~ formed by bonding together a first member having a groove, 1  $\mu$ m to 5 mm width and 1  $\mu$ m to 750  $\mu$ m depth in cross-section, and a second member ~~capable of~~ covering the groove, ~~and together with~~ a first nucleic acid (N1) having an arbitrary base sequence and~~as~~ immobilized in a capturing zone provided in the passage on the first member and/or second member prior to bonding the first member and second member together; and

ii) aA reagent A containing a conjugate (N2-L1) composed of (1) a second nucleic acid (N2) having a sequence at least complementary to the base sequence of the first nucleic acid (N1) immobilized in the capturing zone of the analytical device and (2) a first ligand (L1) capable of specifically binding to a biological substance (O) to be assayed.

4. (Currently amended) An analytical kit comprising ~~the reagent B and analytical device specified below in combination:~~

i) ~~an~~A analytical device comprising a passage allowing a liquid to flow through the same ~~as~~ formed by bonding together a first member having a groove, 1  $\mu$ m to 5 mm width and 1  $\mu$ m to 750  $\mu$ m depth in cross-section, and a second member ~~capable of~~ covering the groove, ~~together with~~ a first nucleic acid (N1) having an arbitrary base sequence and~~as~~ immobilized in a capturing zone provided in the passage on the first member and/or second member prior to bonding the first member and second member

together, and ~~further together with~~ a conjugate (N2-L1) composed of a first ligand (L1) capable of specifically binding to a biological substance (O) to be assayed and a second nucleic acid (N2) having a base sequence at least complementary to the immobilized first nucleic acid and ~~(N1) as formed and~~ immobilized in the capturing zone in the form of a conjugate (N1-N2-L1) by specific binding between the first nucleic acid (N1) and second nucleic acid (N2); and

ii) a reagent B containing a conjugate (L2-M) resulting from binding between a second ligand (L2) capable of specifically binding to the biological substance (O) to be assayed and a marker (M) .

5. (Currently amended) An analytical kit comprising ~~the reagent A, reagent B', reagent C and analytical device specified below in combination, wherein two or more of the reagents A, B' and C may be contained in one and the same system or the reagents may occur each independently:~~

i) an ~~An~~ analytical device comprising a passage allowing a liquid to flow through the same, as ~~as~~ formed by bonding together a first member having a groove, 1  $\mu$ m to 5 mm width and 1  $\mu$ m to 750  $\mu$ m depth in cross-section, and a second member ~~capable of~~ covering the groove, ~~together with~~ a first nucleic acid (N1) having an arbitrary base sequence and ~~as~~ immobilized in a capturing zone provided in the passage on the first member and/or second member prior to bonding the first member and second member together, and ~~further together with~~ a conjugate (N2-L1) composed

of a first ligand (L1) capable of specifically binding to a biological substance (O) to be assayed and a second nucleic acid (N2) having a base sequence at least complementary to the immobilized first nucleic acid (N1) ~~as formed~~ and immobilized in the capturing zone in the form of a conjugate (N1-N2-L1) by specific binding between the first nucleic acid (N1) and second nucleic acid (N2); and

ii) aA reagent B' containing a second ligand (L2) capable of specifically binding to the biological substance (O) to be assayed; and

iii) aA reagent C containing a conjugate (L3-M) composed of a third ligand (L3) capable of specifically binding to the second ligand (L2) and a marker (M).

6. (Currently amended) An analytical kit comprising ~~the reagent A, reagent B and analytical device specified below in combination, wherein the reagent A and B may be contained in one and the same system or may occur each independently:~~

i) an~~A~~ analytical device comprising a passage allowing a liquid to flow through the same, ~~as formed~~ by bonding together a first member having a groove, 1  $\mu$ m to 5 mm width and 1  $\mu$ m to 750  $\mu$ m depth in cross-section, and a second member ~~capable of~~ covering the groove, and~~together with~~ a plurality of first nucleic acid species (N1<sub>g</sub>: g being an integer), each having an arbitrary base sequence and~~as~~ immobilized ~~each independently,~~ from species to species, in a capturing zone provided in the passage on the first member and/or second member prior to bonding

the first member and second member together;

ii) aA reagent A solution containing a plurality of conjugate species ( $N2h-L1i$ :  $h$  and  $i$  each independently being an integer), each composed of (1) one of a plurality of second nucleic acid species ( $N2h$ :  $h$  being an integer) and each having a sequence at least complementary to the base sequence of ~~the corresponding one of~~ among the plurality of first nucleic acid species ~~( $N1g$ :  $g$  being an integer) immobilized in the capturing zone and~~ (2) one of a plurality of first ligand species ( $L1i$ :  $i$  being an integer) which is capable of specifically binding to the corresponding ~~one among one of~~ or more biological substance species ( $Ok$ :  $k$  being an integer) to be assayed; and

iii) aA reagent B containing conjugate species ( $L2j-M1$ :  $j$  and  $l$  each independently being an integer) resulting from binding between one or more second ligand species ( $L2j$ :  $j$  being an integer) capable of specifically binding to ~~the~~ corresponding one of ~~or more~~ biological substance species ~~( $Ok$ :  $k$  being an integer) to~~ be assayed and one or more marker species ( $M1$ :  $l$  being an integer).

7. (Currently amended) An analytical kit comprising ~~the reagent A, reagent B', reagent C and analytical device specified below in combination, wherein two or more of the reagents A, B' and C may be contained in one and the same system or the reagents may occur each independently:~~

i) an~~A~~ analytical device comprising a passage allowing a liquid to flow through the same, as ~~as~~ formed by bonding together a first member having a groove, 1  $\mu$ m to 5 mm width and 1  $\mu$ m to

750  $\mu$ m depth in cross-section, and a second member ~~capable of~~ covering the groove, ~~and together with~~ a plurality of first nucleic acid species ( $N1g$ :  $g$  being an integer) each having an arbitrary base sequence ~~and as~~ immobilized ~~each independently,~~ from species to species, in a capturing zone provided in the passage on the first member and/or second member prior to bonding the first member and second member together;

ii) aA reagent A solution containing a plurality of conjugate species ( $N2h-L1i$ : wherein  $h$  and  $i$  are integers each independently being an integer), each composed of (1) one of a plurality of second nucleic acid species ( $N2h$ :  $h$  being an integer), each having a sequence at least complementary to the base sequence of ~~the~~ ~~corresponding one of among~~ the plurality of first nucleic acid species ~~( $N1g$ :  $g$  being an integer)~~ immobilized in the capturing zone and (2) one of a plurality of first ligand species ( $L1i$ :  $i$  being an integer) which is capable of specifically binding to ~~the corresponding one among one of or more~~ biological substance species ( $Ok$ :  $k$  being an integer) to be assayed;

iii) aA reagent B' containing one or more second ligand species ( $L2j$ :  $j$  being an integer), each capable of specifically binding to one of the ~~corresponding one among the~~ one or more biological substance species ~~( $Ok$ :  $k$  being an integer)~~ to be assayed; and

iv) aA reagent C containing conjugate species ( $L3m-M1$ : wherein  $m$  and  $l$  are integers each independently being an integer) composed of one or more third ligand species ( $L3m$ :  $m$  being an integer) capable of specifically binding to a ~~the~~ corresponding one of ~~among the~~ one or more second ligand species ~~( $L2j$ :  $j$  being an~~



~~integer~~) and one or more marker species ( $M1: 1$  being an integer).

8. (Currently amended) An analytical kit comprising ~~the reagent A and analytical device specified below in combination and containing no marker:~~

- i) ~~an~~An analytical device comprising a passage allowing a liquid to flow through the same ~~and~~as formed by bonding together a first member having a groove, 1  $\mu\text{m}$  to 5 mm width and 1  $\mu\text{m}$  to 750  $\mu\text{m}$  depth in cross-section, and a second member capable of covering the groove, ~~and together with~~and a plurality of first nucleic acid species ( $N1g: g$  being an integer), each having an arbitrary base sequence ~~and~~as immobilized ~~each~~ independently, from species to species, in a capturing zone provided in the passage on the first member and/or second member prior to bonding the first member and second member together;
- ii) a~~A~~ reagent A containing a plurality of conjugate species ( $N2h-L1i: h$  and  $i$  each independently being an integer), each composed of one of a plurality of second nucleic acid species ( $N2h: h$  being an integer), each having a sequence at least complementary to the base sequence of the corresponding one ~~of among~~ the plurality of first nucleic acid species ~~( $N1g: g$  being an integer) immobilized each independently, from species to species, in the capturing zone of the analytical device and one of a plurality of first ligand species ( $L1i: i$  being an integer) which is capable of specifically binding to a~~the~~ corresponding one ~~of among one or more~~ biological substance species ( $Ok: k$  being an integer) to be assayed.~~



9. (Currently amended) An analytical kit comprising the reagent B and analytical device specified below in combination:

i) ~~an~~An analytical device comprising a passage allowing a liquid to flow through the same ~~andas~~ formed by bonding together a first member having a groove, 1  $\mu$ m to 5 mm width and 1  $\mu$ m to 750  $\mu$ m depth in cross-section, and a second member ~~capable of~~ covering the groove, ~~and together with~~ a plurality of first nucleic acid species (N1g: g being an integer), each having an arbitrary base sequence ~~andas~~ immobilized ~~each~~ independently, from species to species, in a capturing zone provided in the passage on the first member and/or second member prior to bonding the first member and second member together, and ~~further together with~~ conjugate species (N2h-L1i: wherein h and i are each ~~independently being an integer~~), each composed of one of a plurality of first ligand species (L1i: i being an integer), which is capable of specifically binding to ~~a~~the corresponding one ~~of among one or more~~ biological substance species (Ok: k being an integer) to be assayed, and one of a plurality of second nucleic acid species (N2h: h being an integer) and, which has a base sequence at least complementary to ~~the corresponding one of among~~ the ~~immobilized first nucleic acid species (N1g: g being an integer)~~, as formed and immobilized in the capturing zone in the form of conjugate species (N1g-N2h-L1i: g, wherein h and i are each ~~independently being an integer~~) by specific binding between the first nucleic acid species and second nucleic acid species; and

ii) a ~~A~~ reagent B containing conjugate species (L2j-Ml: wherein j and l are ~~each independently being~~ an integer) resulting from binding between one or more second ligand species (L2j: j being an integer) respectively capable of specifically binding to the corresponding one ~~or more~~ biological substance species to be assayed and one or more marker species (Ml: l being an integer).

10. (Currently amended) An analytical kit comprising ~~the reagent B', reagent C and analytical device specified below in combination:~~

i) an ~~An~~ analytical device comprising a passage allowing a liquid to flow through the same, as ~~as~~ formed by bonding together a first member having a groove, 1  $\mu$ m to 5 mm width and 1  $\mu$ m to 750  $\mu$ m depth in cross-section, and a second member ~~capable of~~ covering the groove, ~~together with~~ a plurality of first nucleic acid species (N1g: g being an integer), each having an arbitrary base sequence and ~~as~~ immobilized ~~each independently~~, from species to species, in a capturing zone provided in the passage on the first member and/or second member prior to bonding the first member and second member together, and ~~further together with~~ conjugate species (N2h-Lli: h and i each independently being an integer), each composed of one of a plurality of first ligand species (Lli: i being an integer), which is capable of specifically binding to a ~~the~~ corresponding one of the ~~among~~ one or more biological substance species (Ok: k being an integer) to be assayed, and one of a plurality of second nucleic acid species (N2h: h being an integer), which has a base sequence

at least complementary to ~~a~~the corresponding one ~~of among~~ the immobilized first nucleic acid species ( $N1g$ :  $g$  being an integer), ~~as formed and~~ each conjugate species ( $N2h-L1i$ ) independently immobilized in the capturing zone in the form of conjugate species ( $N1g-N2h-L1i$ : wherein  $g$ ,  $h$  and  $i$  are each an integer) by specific binding between the first nucleic acid species and second nucleic acid species; and

ii) aA reagent B' containing one or more second ligand species ( $L2j$ :  $j$  being an integer) capable of specifically binding to ~~a~~the corresponding one of the ~~or more~~ biological substance species ~~( $Ok$ :  $k$  being an integer)~~ to be assayed;

iii) aA reagent C containing conjugate species ( $L3m-M1$ : wherein  $m$  and  $l$  are each independently being an integer) derived from one or more third ligand species ( $L3m$ :  $m$  being an integer) capable of specifically binding to ~~the~~ corresponding one of the ~~or more~~ second ligand species ( $L2j$ :  $j$  being an integer) and one or more marker species ( $M1$ :  $l$  being an integer).

11. (Original) An analytical kit according to any of Claims 1 to 10, wherein the biological substance(s), first ligand(s) ( $L1$  or  $L1i$ :  $i$  being an integer), second ligand(s) ( $L2$  or  $L2j$ :  $j$  being an integer) and/or third ligand(s) ( $L3$  or  $L3m$ :  $m$  being an integer) is/are selected from among immunological substances, receptors, receptor-binding substances, sugars, glycoproteins, glycolipids, lectins and nucleic acids.

12. (Original) An analytical kit according to Claim 1, 2, 3,

4, 5, 6, 7, 8, 9 or 10, wherein the first ligand or ligands (L1 or L1i: i being an integer) and/or second ligand or ligands (L2 or L2j: j being an integer) are different in reactivity.

13. (Original) An analytical kit according to Claim 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10, wherein the first ligand or ligands (L1 or L1i: i being an integer) and/or second ligand or ligands (L2 or L2j: j being an integer) are identical in reactivity.

14. (Original) An analytical kit according to any of Claims 1 to 10, wherein the marker or markers (M or M1: 1 being an integer) each is selected from among enzymes, colloidal metals, latexes, nucleic acids, luminescent substances, fluorescent substances, intercalators, biotin, avidin and streptavidin.

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (Currently amended) An analytical device comprising a passage allowing a liquid to flow through the same, ~~as~~ formed by bonding together a first member having a groove, 1  $\mu$ m to 5 mm width and 1  $\mu$ m to 750  $\mu$ m depth in cross-section, and a second member ~~capable of~~ covering the groove to form the passage, ~~together with~~ a first nucleic acid (N1) having an arbitrary base

sequence ~~as~~ immobilized in a capturing zone provided in the passage ~~on the first member and/or second member~~ prior to bonding the first member and second member together, and said device ~~further comprising~~ a conjugate (N2-L1) composed of a first ligand (L1) capable of specifically binding to a biological substance (O) to be assayed and a second nucleic acid (N2) having a base sequence at least complementary to the immobilized first nucleic acid (N1) ~~as formed~~ and immobilized in the capturing zone by specific binding between the first nucleic acid (N1) and second nucleic acid (N2).

19. (Currently amended) An analytical device comprising a passage allowing a liquid to flow through the same ~~as formed~~ by bonding together a first member having a groove, 1  $\mu$ m to 5 mm width and 1  $\mu$ m to 750  $\mu$ m depth in cross-section, and a second member ~~capable of covering the groove~~ to form the passage, ~~together with a plurality of first nucleic acid species (N1g: g being an integer), each having an arbitrary base sequence~~ and as immobilized ~~each independently, from species to species, in a capturing zone provided in the passage on the first member and/or second member prior to bonding the first member and second member together, said device further comprising~~ conjugate species (N2h-L1i: h and i each ~~independently~~ being an integer), each conjugate species being composed of one of a plurality of a first ligand species (L1i: i being an integer), which is capable of specifically binding to a ~~the~~ corresponding one of ~~among one or more~~ biological substance species (Ok: k being an integer) to

be assayed, and one of a plurality of second nucleic acid species ( $N2h$ :  $h$  being an integer), each of which has a base sequence at least complementary to ~~at the~~ corresponding one ~~of among~~ the immobilized first nucleic acid species ~~( $N1g$ :  $g$  being an integer)~~, ~~as formed and~~ which is immobilized ~~each~~ independently, from species to species, in the capturing zone by specific binding between the first nucleic acid species and second nucleic acid species.

20. (Canceled)

21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Currently amended) An analytical method comprising ~~the following elements i) to iv):~~

~~i)~~ preparing ~~Preparing~~ an analytical device, comprising a passage allowing a liquid to flow through the same, ~~as formed~~ by bonding together a first member having a groove, 1  $\mu$ m to 5 mm width and 1  $\mu$ m to 750  $\mu$ m depth in cross-section, and a second member ~~capable of covering the groove;~~ ~~together with~~

immobilizing a first nucleic acid ( $N1$ ), having an arbitrary base sequence, ~~as immobilized~~ in a capturing zone provided in the passage on the first member and/or second member prior to

bonding the first member and second member together;

~~ii)~~ preparing~~Preparing~~ a reagent A containing a conjugate (N2-L1) resulting from binding of a first ligand (L1), capable of specifically binding to a biological substance to be assayed, to a second nucleic acid (N2) having a sequence at least complementary to the base sequence of the first nucleic acid (N1);

~~iii)~~ mixing~~Introducing~~ a liquid sample suspected of ~~containing the occurrence therein of~~ the biological substance to be assayed and the reagent A, either after ~~preliminary mixing thereof for~~ conjugate formation or while allowing conjugate formation, to form a mixture;

introducing the mixture into the passage in the analytical device to immobilize the~~for immobilizing the resulting~~ conjugate within the passage; and

~~iv)~~ assaying~~Assaying~~ the immobilized conjugate.

25. (Currently amended) An analytical method comprising ~~the following elements i) to iv):~~

~~i)~~ preparing~~Preparing~~ an analytical device, comprising a passage allowing a liquid to flow through the same, ~~as formed by bonding together a first member having a groove, 1  $\mu$ m to 5 mm width and 1  $\mu$ m to 750  $\mu$ m depth in cross-section, and a second member capable of covering the groove;~~

immobilizing together with a first nucleic acid (N1), having an arbitrary base sequence, ~~as immobilized in a capturing zone provided in the passage on the first member and/or second~~



member prior to bonding the first member and second member together;

~~ii)~~ preparing~~Preparing~~ a reagent A containing a conjugate (N2-L1) resulting from binding of a first ligand (L1), capable of specifically binding to a biological substance to be assayed, to a second nucleic acid (N2) having a sequence at least complementary to the base sequence of the first nucleic acid (N1);

~~iii)~~ separately introducing~~Introducing~~ a liquid sample suspected to contain~~of the occurrence therein~~ of the biological substance to be assayed and the reagent A ~~individually~~, without preliminary mixing of the liquid sample and reagent A together, into the passage in the analytical device to immobilize the~~for immobilizing the resulting~~ conjugate within the passage; and

~~iv)~~ assaying~~Assaying~~ the immobilized conjugate.

26. (Currently amended) An analytical method comprising ~~the following elements i) to iv)~~:

~~i)~~ preparing~~Preparing~~ an analytical device, comprising a passage allowing a liquid to flow through the same, ~~as formed~~ by bonding together a first member having a groove, 1  $\mu$ m to 5 mm width and 1  $\mu$ m to 750  $\mu$ m depth in cross-section, and a second member ~~capable of covering the groove~~;

immobilizing together with a plurality of first nucleic acid species (N1g: g being an integer), each having an arbitrary base sequence, ~~as immobilized each independently~~, from species to species, in a capturing zone provided in the passage on the

first member and/or second member prior to bonding the first member and second member together;

~~ii)~~ preparing~~Preparing~~ a reagent A containing a plurality of conjugate species ( $N_2h-L_1i$ :  $h$  and  $i$  each ~~independently~~ being an integer), each resulting from binding of (1) one of a plurality of first ligand species ( $L_1i$ :  $i$  being an integer), ~~which is~~ capable of specifically binding to a~~the~~ corresponding one of~~among~~ one or more biological substance species ( $O_k$ :  $k$  being an integer) to be assayed, to (2) one of a plurality of second nucleic acid species ( $N_2h$ :  $h$  being an integer), each having a sequence at least complementary to the base sequence of a~~the~~ corresponding one of~~among~~ the plurality of first nucleic acid species ~~( $N_1g$ :  $g$  being an integer)~~;

~~iii)~~ mixing~~Introducing~~ a liquid sample, suspected of containing~~the occurrence therein of~~ one or more of the biological substance species ~~( $O_k$ :  $k$  being an integer)~~ to be assayed, and the reagent A to form a mixture;

introducing the mixture, either after ~~preliminary mixing thereof for~~ conjugate formation or while allowing conjugate formation, into the passage in the analytical device to immobilize~~for immobilizing the resulting~~ one or more of the conjugate species~~conjugates~~ within the passage; and

~~iv)~~ assaying~~Assaying~~ the immobilized conjugate(s).

27. (Currently amended) An analytical method comprising ~~the following elements i) to iv)~~:

~~i)~~ preparing~~Preparing~~ an analytical device, comprising a

passage allowing a liquid to flow through the same, ~~as formed~~ by bonding together a first member having a groove, 1  $\mu$ m to 5 mm width and 1  $\mu$ m to 750  $\mu$ m depth in cross-section, and a second member ~~capable of covering the groove~~;

~~immobilizing together with~~ a plurality of first nucleic acid species ( $N1g$ :  $g$  being an integer), each having an arbitrary base sequence, ~~as immobilized each independently~~, from species to species, in a capturing zone provided in the passage on the first member and/or second member prior to bonding the first member and second member together;

ii) ~~preparing~~ ~~Preparing~~ a reagent A containing a plurality of conjugate species ( $N2h-L1i$ :  $h$  and  $i$  each ~~independently~~ being an integer) each resulting from binding of (1) one of a plurality of first ligand species ( $L1i$ :  $i$  being an integer), ~~which is capable of specifically binding to the corresponding one of among one or more biological substance species~~ ( $Ok$ :  $k$  being an integer) to be assayed, to (2) one of a plurality of second nucleic acid species ( $N2h$ :  $h$  being an integer), each having a sequence at least complementary to the base sequence of ~~at the~~ corresponding one ~~of among~~ the plurality of first nucleic acid species ~~( $N1g$ :  $g$  being an integer)~~;

iii) ~~separately introducing~~ (1) ~~Introducing~~ a liquid sample suspected of ~~containing the occurrence therein of~~ one or more ~~of the biological substances~~ ( ~~$Ok$ :  $k$  being an integer~~) to be assayed and (2) the reagent A ~~individually~~ into the passage in the analytical device ~~to immobilize for immobilizing~~ the resulting one or more ~~conjugate species~~ ~~conjugates~~ within the passage; and

~~iv)~~ assaying~~Assaying~~ the immobilized conjugate(s).

28. (Currently amended) An analytical method using an analytical kit according to claim 1, the method comprising the following elements i) to iv):

~~i) Using the analytical kit according to Claim 1;~~

~~ii) mixingIntroducing two or more of the following materials a, b and c given below, either after preliminary mixing thereof for conjugate formation or while allowing conjugate formation, to form a mixture;~~

~~into the passage in the analytical device contained in the analytical kit, followed by introduction of the remaining material, if any, into the passage:~~

a. ~~a~~A liquid sample suspected of containing~~the occurrence~~ therein of a biological substance (O) to be assayed,

b. ~~the~~A reagent A containing ~~a~~the conjugate (N2-L1) composed of a second nucleic acid (N2) having a base sequence at least complementary to the base sequence of the first nucleic acid (N1) immobilized in the capturing zone and a first ligand (L1) capable of specifically binding to the biological substance (O) to be assayed,

c. ~~the~~A reagent B containing ~~a~~the conjugate (L2-M) resulting from direct binding of a marker to a second ligand (L2) capable of specifically binding to the biological substance (O) to be assayed;

introducing the mixture into the passage in the analytical device contained in the analytical kit, followed by introduction

of the remaining material of a, b and c, if any, into the passage;  
~~iii)~~ allowing~~Allowing~~ the formation of an immobilized conjugate (N1-N2-L1-O-L2-M) by specific binding between the first nucleic acid (N1) immobilized in the capturing zone in the analytical device and the second nucleic acid (N2), specific binding between the first ligand (L1) and biological substance (O) and specific binding between the second ligand (L2) and biological substance (O); and  
~~iv)~~ assaying~~Assaying~~ the biological substance (O) by detecting~~assaying~~ the marker (M) contained in the immobilized conjugate (N1-N2-L1-O-L2-M).

29. (Currently amended) An analytical method using an analytical kit according to claim 1, the method comprising the following elements i) to iv):

~~i) Using the analytical kit according to Claim 1;~~  
~~ii) separately introducing~~Introducing the following materials a, b and c given below individually, without mixing together, into the passage in the analytical device contained in the analytical kit:

a. a~~Aliquid sample suspected of containing the occurrence~~ therein of a biological substance (O) to be assayed,

b. the~~A reagent A containing a conjugate (N2-L1) composed of a second nucleic acid (N2) having a base sequence at least complementary to the base sequence of the first nucleic acid (N1) immobilized in the capturing zone and a first ligand (L1) capable of specifically binding to the biological substance (O)~~

~~to be assayed,~~

c. ~~the~~A reagent B containing ~~the~~a conjugate (L2-M) ~~resulting from direct binding of a marker (M) to a second ligand (L2) capable of specifically binding to the biological substance (O) to be assayed;~~

~~iii)~~ ~~allowing~~Allowing the formation of an immobilized conjugate (N1-N2-L1-O-L2-M) by specific binding between the first nucleic acid (N1) immobilized in the capturing zone ~~in the analytical device~~ and the second nucleic acid (N2), specific binding between the first ligand (L1) and biological substance (O) and specific binding between the second ligand (L2) and biological substance (O); and

~~iv)~~ ~~assaying~~Assaying the biological substance (O) by ~~detecting~~assaying the marker (M) contained in the immobilized conjugate (N1-N2-L1-O-L2-M).

30. (Currently amended) An analytical method using the analytical kit according to claim 2, the method comprising the following elements i) to iv):

~~i)~~ ~~Using the analytical kit according to Claim 2;~~

~~ii)~~ mixing~~Introducing~~ two or more of the following materials a, b, c and d ~~given below, either after preliminary mixing thereof for conjugate formation or while allowing conjugate formation, to form a mixture: into the passage in the analytical device contained in the analytical kit, followed by introduction of the remaining material or materials, if any, into the passage:~~

a. a~~A~~ liquid sample suspected of containing~~the occurrence~~

~~therein of~~ a biological substance (O) to be assayed,

b. ~~the~~A reagent A containing a conjugate (N2-L1) ~~composed of a second nucleic acid (N2) having a base sequence at least complementary to the base sequence of the first nucleic acid (N1) immobilized in the capturing zone and a first ligand (L1) capable of specifically binding to the biological substance (O) to be assayed,~~

c. ~~the~~A reagent B' containing a second ligand (L2) ~~capable of specifically binding to the biological substance (O) to be assayed, and~~

d. ~~the~~A reagent C containing a conjugate (L3-M) ~~composed of a third ligand (L3) capable of specifically binding to the second ligand (L2) and a marker (M);~~

introducing the mixture into the passage in the analytical device contained in the analytical kit, followed by introduction of the remaining material or materials a, b, c and d, if any, into the passage;

~~iii) allowing~~Allowing the formation of an immobilized conjugate (N1-N2-L1-O-L2-L3-M) by specific binding between the first nucleic acid (N1) immobilized in the capturing zone ~~in the analytical device~~ and the second nucleic acid (N2), specific binding between the first ligand (L1) and the biological substance (O), specific binding between the second ligand (L2) and the biological substance (O) and specific binding between the second ligand (L2) and third ligand (L3); and

~~iv) assaying~~Assaying the biological substance (O) by detecting~~assaying~~ the marker (M) contained in the immobilized



conjugate (N1-N2-L1-O-L2-L3-M) .

31. (Currently amended) An analytical method using the analytical kit according to claim 2, the method comprising the following elements i) to iv):

~~i) Using the analytical kit according to Claim 2;~~

ii) separately introducing~~Introducing~~ the following materials a, b, c and d individually, without any mixing, into the passage in the analytical device contained in the analytical kit:

a. a~~A~~ liquid sample suspected of containing~~the occurrence~~ therein of a biological substance (O) to be assayed,

b. the~~A~~ reagent A containing the~~a~~ conjugate (N2-L1) ~~composed of a second nucleic acid (N2) having a base sequence at least complementary to the base sequence of the first nucleic acid (N1) immobilized in the capturing zone and a first ligand (L1) capable of specifically binding to the biological substance (O) to be assayed,~~

c. the~~A~~ reagent B' containing a~~the~~ second ligand (L2) ~~capable of specifically binding to the biological substance (O) to be assayed, and~~

d. the~~A~~ reagent C containing the~~a~~ conjugate (L3-M) ~~composed of a third ligand (L3) capable of specifically binding to the second ligand (L2) and a marker (M);~~

iii) allowing~~Allowing~~ the formation of an immobilized conjugate (N1-N2-L1-O-L2-L3-M) by specific binding between the first nucleic acid (N1) immobilized in the capturing zone ~~in~~

~~the analytical device and the second nucleic acid (N2), specific binding between the first ligand (L1) and biological substance (O), specific binding between the second ligand (L2) and biological substance (O) and specific binding between the second ligand (L2) and third ligand (L3); and~~

~~iv) assaying~~Assaying the biological substance (O) by ~~detecting~~assaying the marker (M) contained in the immobilized conjugate (N1-N2-L1-O-L2-L3-M).

32. (Currently amended) An analytical method using the analytical kit according to claim 2, the method comprising the following elements i) to v):

~~i) Using the analytical kit according to Claim 3;~~

~~ii) preparing~~Preparing a marker-carrying biological substance (O-M) in advance from a liquid sample suspected of ~~containing the occurrence therein of~~ a biological substance (O) to be assayed by introduction of a marker (M) into that substance;

~~iii) introducing the~~Introducing a reagent A containing ~~the~~ conjugate (N2-L1) ~~composed of a second nucleic acid (N2) having a base sequence at least complementary to the base sequence of the first nucleic acid (N1) immobilized in the capturing zone and a first ligand (L1) capable of specifically binding to the biological substance (O) to be assayed and the marker-carrying biological substance (O-M), either after preliminary mixing up for conjugate formation or while allowing conjugate formation, into the passage in the analytical device contained in the analytical kit;~~

~~iv)~~ allowing~~Allowing~~ the formation of an immobilized conjugate (N1-N2-L1-O-M) by specific binding between the first nucleic acid (N1) immobilized in the capturing zone ~~in the analytical device~~ and the second nucleic acid (N2); and  
~~v)~~ assaying~~Assaying~~ the biological substance (O) by detecting~~assaying~~ the marker (M) contained in the immobilized conjugate (N1-N2-L1-O-M).

33. (Currently amended) An analytical method using the analytical kit according to claim 2, the method comprising the following elements i) to v):

~~i)~~ ~~Using the analytical kit according to Claim 3;~~  
~~ii)~~ preparing~~Preparing~~ a marker-carrying biological substance (O-M) in advance from a liquid sample suspected of containing~~the occurrence therein of~~ a biological substance (O) to be assayed by introduction of a marker (M) into that substance;  
separately introducing (1) the~~iii)~~ ~~Introducing~~ a reagent A containing the conjugate (N2-L1) ~~composed of a second nucleic acid (N2) having a base sequence at least complementary to the base sequence of the first nucleic acid (N1) immobilized in the capturing zone and a first ligand (L1) capable of specifically binding to the biological substance (O) to be~~ assayed and (2) the marker-carrying biological substance (O-M) individually, without mixing together, into the passage in the analytical device contained in the analytical kit;  
~~iv)~~ allowing~~Allowing~~ the formation of an immobilized conjugate (N1-N2-L1-O-M) by specific binding between the first

nucleic acid (N1) immobilized in the capturing zone ~~in the analytical device~~ and the second nucleic acid (N2); and  
~~v)~~ assaying Assaying the biological substance (O) by ~~detecting~~ assaying the marker (M) contained in the immobilized conjugate (N1-N2-L1-O-M).

34. (Currently amended) An analytical method using the analytical kit according to claim 4, the method comprising the following elements i) to iv):

~~i)~~ ~~Using the analytical kit according to Claim 4;~~  
~~ii)~~ mixing ~~Introducing~~ the following materials a and b to form a mixture: ~~given below, either after preliminary mixing up for conjugate formation or while allowing conjugate formation, into the passage in the analytical device contained in the analytical kit:~~

a. A ~~liquid sample suspected of containing the occurrence~~ of a biological substance (O) to be assayed,

b. the ~~A~~ reagent B ~~containing the~~ conjugate (L2-M) ~~resulting from direct binding between a second ligand (L2) capable of specifically binding to the biological substance (O) to be assayed and a marker (M);~~

introducing the mixture, either after conjugate formation or while allowing conjugate formation, into the passage in the analytical device;

allowing ~~iii)~~ ~~Allowing~~ the formation of an immobilized conjugate (N1-N2-L1-O-L2-M) by specific binding between the first ligand (L1) in the conjugate (N1-N2-L1)

immobilized in the capturing zone ~~in the analytical device and~~ and the biological substance (O) and by specific binding between the second ligand (L2) in the conjugate (L2-M) and the biological substance (O); and

assaying~~iv)~~ Assaying the biological substance (O) by detecting~~assaying~~ the marker (M) contained in the immobilized conjugate (N1-N2-L1-O-L2-M).

35. (Currently amended) An analytical method using an analytical kit according to claim 4, the method comprising the following elements i) to iv):

~~i) Using the analytical kit according to Claim 4;~~

separately introducing~~ii)~~ ~~Introducing~~ the following materials a and b individually, without mixing together, into the passage in the analytical device contained in the analytical kit:

a. a~~A~~ liquid sample suspected of containing~~the occurrence~~ therein of a biological substance (O) to be assayed,

b. the~~A~~ reagent B containing the~~a~~ conjugate (L2-M) ~~resulting from direct binding between a second ligand (L2) capable of specifically binding to the biological substance (O) to be assayed and a marker (M);~~

allowing~~iii)~~ ~~Allowing~~ the formation of an immobilized conjugate (N1-N2-L1-O-L2-M) by specific binding between the first ligand (L1) in the conjugate (N1-N2-L1) immobilized in the capturing zone in the analytical device and the biological substance (O) and by specific binding between

the second ligand (L2) in the conjugate (L2-M) and the biological substance (O); and

~~iv)~~ assaying the biological substance (O) by detecting the marker (M) contained in the immobilized conjugate (N1-N2-L1-O-L2-M).

36. (Currently amended) An analytical method using an analytical kit according to claim 5, the method comprising the following elements i) to iv):

~~i) Using the analytical kit according to Claim 5;~~

mixing ~~ii) Introducing two or more of the following materials a, b and c to form a mixture; given below, either after preliminary mixing for conjugate formation or while allowing conjugate formation, into the passage in the analytical device contained in the analytical kit, followed by introduction of the remaining material, if any, into the passage:~~

a. a liquid sample suspected of containing the ~~occurrence therein of a biological substance (O) to be assayed,~~

b. theA reagent B', and containing a second ligand (L2) ~~capable of specifically binding to the biological substance (O) to be assayed,~~

c. theA reagent C containing thea conjugate (L3-M) ~~composed of a third ligand (L3) capable of specifically binding to the second ligand (L2) and a marker (M);~~

introducing the mixture, either after further conjugate formation or while allowing further conjugate formation, into the passage in the analytical device, followed by introduction

of the remaining material a, b or c, if any, into the passage;  
allowing further conjugate iii) ~~Allowing~~ the  
formation to produce an immobilized conjugate  
(N1-N2-L1-O-L2-L3-M) by specific binding between the first  
ligand (L1) in the conjugate (N1-N2-L1) immobilized in the  
capturing zone ~~in the analytical device~~ and the biological  
substance (O), specific binding between the second ligand (L2)  
and biological substance (O) and specific binding between the  
second ligand and third ligand; and

assayingiv) ~~Assaying~~ the biological substance (O) by  
detecting ~~assaying~~ the marker (M) contained in the immobilized  
conjugate (N1-N2-L1-O-L2-L3-M).

37. (Currently amended) An analytical method using an  
analytical kit according to claim 5, the method comprising the  
following elements i) to iv):

~~i) Using the analytical kit according to Claim 5;~~

introducingii) ~~Introducing~~ the following materials a,  
b and c individually, without mixing together, into the passage  
in the analytical device contained in the analytical kit:

a. a ~~A~~ liquid sample suspected of containing ~~the occurrence~~  
~~therein~~ of a biological substance (O) to be assayed,

b. the ~~A~~ reagent B' containing the ~~a~~ second ligand (L2)  
~~capable of specifically binding to the biological substance (O)~~  
~~to be assayed,~~

c. the ~~A~~ reagent C containing the ~~a~~ conjugate (L3-M)  
~~composed of a third ligand (L3) capable of specifically binding~~



~~to the second ligand (L2) and a marker (M);~~

~~allowing~~<sup>iii)</sup> — ~~Allowing~~ the formation of an immobilized conjugate (N1-N2-L1-O-L2-L3-M) by specific binding between the first ligand (L1) in the conjugate (N1-N2-L1) immobilized in the capturing zone ~~in the analytical device and~~ the biological substance (O), specific binding between the second ligand (L2) and biological substance (O) and specific binding between the second ligand and third ligand; and

~~assaying~~<sup>iv)</sup> — ~~Assaying~~ the biological substance (O) by ~~detecting~~<sup>assaying</sup> the marker (M) contained in the immobilized conjugate (N1-N2-L1-O-L2-L3-M).

38. (Currently amended) An analytical method using an analytical kit according to claim 6, the method comprising the following elements i) to iv):

~~i) — Using the analytical kit according to Claim 6;~~

~~mixing~~<sup>ii)</sup> — ~~Introducing~~ two or more of the following materials a, b and c to form a mixture: specified below, ~~either after mixing together for conjugate formation or while allowing conjugate formation, into the passage in the analytical device contained in the analytical kit, followed by further introduction of the remaining material, if any, into the passage:~~

a. a liquid sample suspected of containing the occurrence therein of one or more biological substance species (Ok: k being an integer) to be assayed,

b. the A reagent A solution containing conjugate species ~~(N2h-L1i, and: h and i each independently being an integer)~~ each

~~composed of one of a plurality of second nucleic acid species (N2h: h being an integer), which has a base sequence at least complementary to the corresponding species among the plurality of first nucleic acid species (N1g: g being an integer) immobilized each independently, from species to species, in the capturing zone, and one of a plurality of first ligand species (L1i: i being an integer), which is capable of specifically binding to the corresponding species among the one or more biological substance species to be assayed;~~

c. ~~the~~A reagent B containing conjugate species (L2j-M1; ÷ j and l each independently being an integer) each composed of ~~one of one or more second ligand species (L2j: j being an integer), which is capable of specifically binding to the corresponding species among the biological substance species (Ok: k being an integer), and one of one or more marker species (M1: l being an integer);~~

introducing the mixture, either after conjugate formation or while allowing conjugate formation, into the passage in the analytical device contained in the analytical kit, followed by further introduction of the remaining material a, b, and c, if any, into the passage;

allowingiii) ~~—~~Allowing the formation of conjugate species (N1g-N2h-L1i-Ok-L2j-M1: wherein g, h, i, j, k and l are each independently being an integer), each immobilized each independently, from species to species, by specific binding between the plurality of first nucleic acid species (N1g: g being an integer) ~~immobilized independently, from species to species,~~

~~in the capturing zone in the analytical device and the plurality of second nucleic acid species ( $N2h$ :  $h$  being an integer), specific binding between the plurality of first ligand species ( $L1i$ :  $i$  being an integer) and the one or more biological substance species ( $Ok$ :  $k$  being an integer) and specific binding between the one or more second ligand species ( $L2j$ :  $j$  being an integer) and the one or more biological substance species ( $Ok$ :  $k$  being an integer);~~  
and

~~assaying iv) assaying the one or more biological substance species ( $Ok$ :  $k$  being an integer) by detecting~~assaying the one or more marker species ( $M1$ :  $l$  being an integer) contained in the plurality of immobilized conjugate species ( $N1g$ - $N2h$ - $L1i$ - $Ok$ - $L2j$ - $M1$ :  $g, h, i, j, k$  and  $l$  each independently being an integer) obtained in the above step.

39. (Currently amended) An analytical method using an analytical kit according to claim 6, the method comprising the following elements i) to iv):

~~i) Using the analytical kit according to Claim 6;~~

introducing ii) ~~Introducing~~ the following materials a, b and c individually, without mixing together, into the passage in the analytical device contained in the analytical kit:

a. a Aliquid sample suspected of containing ~~the occurrence therein of~~ one or more biological substance species ( $Ok$ :  $k$  being an integer) to be assayed,

b. the A reagent A solution containing the conjugate species ( $N2h$ - $L1i$ ,  $h$  and  $i$  each independently being an integer)

~~each composed of one of a plurality of second nucleic acid species (N2h: h being an integer), which has a base sequence at least complementary to the corresponding species among the plurality of first nucleic acid species (N1g: g being an integer) immobilized each independently, from species to species, in the capturing zone, and one of a plurality of first ligand species (L1i: i being an integer), which is capable of specifically binding to the corresponding species among the one or more biological substance species to be assayed;~~

c. ~~the~~A reagent B containing ~~the~~conjugate species (L2j-M1; ~~j and l each independently being an integer~~) each composed of one of one or more second ligand species (L2j: j being an integer), which is capable of specifically binding to the corresponding species among the biological substance species (Ok: k being an integer), and one of one or more marker species (M1: ~~l being an integer~~);

~~allowing~~iii) ——— Allowing the formation of conjugate species (N1g-N2h-L1i-Ok-L2j-M1: wherein g, h, i, j, k and l are each independently being an integer) immobilized each independently, from species to species, by specific binding between the plurality of first nucleic acid species (N1g: ~~g being an integer~~) immobilized independently, from species to species, in the capturing zone ~~in the analytical device~~ and the plurality of second nucleic acid species (N2h: ~~h being an integer~~), specific binding between the plurality of first ligand species (L1i: ~~i being an integer~~) and the one or more biological substance species (Ok: ~~k being an integer~~) and specific binding between the one

or more second ligand species ~~(L2j: j being an integer)~~ and the one or more biological substance species ~~(Ok: k being an integer)~~; iv) assaying the one or more biological substance species ~~(Ok: k being an integer)~~ by detecting ~~assaying~~ the one or more marker species ~~(Ml: l being an integer)~~ contained in the plurality of immobilized conjugate species ~~(N1g-N2h-L1i-Ok-L2j-Ml: g, h, i, j, k and l each independently being an integer)~~ obtained in the above step.

40. (Currently amended) An analytical method using the analytical kit according to claim 7, the method comprising the following elements i) to iv):

~~i) Using the analytical kit according to Claim 7;~~  
mixing ~~ii) Introducing a mixture of two or more of the following materials a, b, c and d to form a mixture: given below as prepared in advance into the passage in the analytical device contained in the analytical kit, followed by introduction of the remaining material(s), if any, into the passage:~~

a. a ~~Aliquid sample suspected of containing the occurrence therein of~~ one or more biological substance species (Ok: k being an integer) to be assayed,

b. the ~~A reagent A solution containing conjugate species (N2h-L1i, : h and i each independently being an integer) each composed of one of a plurality of second nucleic acid species (N2h: h being an integer), which has a base sequence at least complementary to the corresponding species among the plurality of first nucleic acid species (N1g: g being an integer)~~

~~immobilized each independently, from species to species, in the capturing zone, and one of a plurality of first ligand species (L1i: i being an integer), which is capable of specifically binding to the corresponding species among the one or more biological substance species to be assayed,~~

c. ~~theA reagent B' containing one or more second ligand species (L2j: j being an integer) each capable of specifically binding to the corresponding one among the one or more biological substance species (Ok: k being an integer) to be assayed, and~~

d. ~~theA reagent C containing conjugate species (L3m-M1: m and l each independently being an integer) each composed of one of one or more third ligand species (L3m: m being an integer), which is capable of specifically binding to the corresponding species among the second ligand species (L2j: j being an integer), and one of one or more marker species (M1: l being an integer);~~

introducing the mixture into the passage in the analytical device, followed by introduction of the remaining materials a, b, c and d, if any, into the passage;

allowingiii)——Allowing the formation of conjugate species (N1g-N2h-L1i-Ok-L2j-L3m-M1: wherein g, h, i, j, k, l and m are each independently being an integer), each immobilized ~~each independently, from species to species, by specific binding between the plurality of first nucleic acid species (N1g: g being an integer) immobilized independently, from species to species, in the capturing zone in the analytical device and the plurality of second nucleic acid species (N2h: h being an integer), specific binding between the plurality of first ligand species (L1i: i~~



~~being an integer~~) and the one or more biological substance species ~~(0k: k being an integer)~~, specific binding between the one or more second ligand species ~~(L2j: j being an integer)~~ and the one or more biological substance species ~~(0k: k being an integer)~~ and specific binding between the one or more second ligand species ~~(L2j: j being an integer)~~ and the one or more third ligand species ~~(L3m: m being an integer)~~;

~~iv)~~ assaying the one or more biological substance species ~~(0k: k being an integer)~~ by detecting ~~assaying~~ the one or more marker species ~~(Ml: l being an integer)~~ contained in the plurality of immobilized conjugate species (N1g-N2h-L1i-0k-L2j-L3m-Ml: wherein g, h, i, j, k, l and m are each independently being an integer).

41. (Currently amended) An analytical method using the analytical kit according to claim 7, the method comprising the following elements i) to iv):

~~i) Using the analytical kit according to Claim 7;~~

introducing ii) ~~Introducing~~ the following materials a, b, c and d individually, without mixing together, into the passage in the analytical device contained in the analytical kit:

a. a ~~A~~ liquid sample suspected of containing ~~the occurrence~~ ~~therein of~~ one or more of the biological substance species ~~(0k: k being an integer)~~ to be assayed,

b. the ~~A~~ reagent A solution containing conjugate species ~~(N2h-L1i: h and i each independently being an integer)~~ each composed of one of a plurality of second nucleic acid species



~~{N2h: h being an integer} having a base sequence at least complementary to the corresponding species among the plurality of first nucleic acid species {N1g: g being an integer} immobilized each independently, from species to species, in the capturing zone, and one of a plurality of first ligand species {L1i: i being an integer}, which is capable of specifically binding to the corresponding species among the one or more biological substance species to be assayed,~~

c. theA reagent B' containing one or more of the second ligand species ~~{L2j: j being an integer} each capable of specifically binding to the corresponding one among the one or more biological substance species {Ok: k being an integer} to be assayed, and~~

d. theA reagent C containing conjugate species ~~{L3m-M1: m and l each independently being an integer} each composed of one of one or more third ligand species {L3m: m being an integer}, which is capable of specifically binding to the corresponding species among the second ligand species {L2j: j being an integer}, and one of one or more marker species {M1: l being an integer}; and~~

allowing~~iii)~~ Allowing the formation of conjugate species ~~{N1g-N2h-L1i-Ok-L2j-L3m-M1: (wherein g, h, i, j, k, l and m are each independently being an integer), each~~ immobilized each independently, from species to species, by specific binding between the plurality of first nucleic acid species ~~{N1g: g being an integer} immobilized each independently, from species to species, in the capturing zone in the analytical device and the~~

plurality of second nucleic acid species ~~(N2h: h being an integer)~~, specific binding between the plurality of first ligand species ~~(L1i: i being an integer)~~ and the one or more biological substance species ~~(Ok: k being an integer)~~, specific binding between the one or more second ligand species ~~(L2j: j being an integer)~~ and the one or more biological substance species ~~(Ok: k being an integer)~~ and specific binding between the one or more second ligand species ~~(L2j: j being an integer)~~ and the one or more third ligand species ~~(L3m: m being an integer)~~;

iv) assaying the one or more biological substance species ~~(Ok: k being an integer)~~ by detecting ~~assaying~~ the one or more marker species ~~(Ml: l being an integer)~~ contained in the plurality of immobilized conjugate species ~~(N1g-N2h-L1i-Ok-L2j-L3m-Ml: g, h, i, j, k, l and m each independently being an integer)~~.

42. (Currently amended) An analytical method using the analytical kit according to claim 8, the method comprising the following elements i) to v):

~~i) Using the analytical kit according to Claim 8;~~

preparing at least ~~ii) Preparing in advance one or more marker-carrying biological substance species (Ok-Ml: (wherein k and l are each independently being an integer) from a liquid sample suspected of containing the occurrence therein of one or more of the biological substance species (Ok: k being an integer) by introduction of one or more marker species (Ml: (l being an integer) into the liquid sample these biological substance species;~~

introducing theiii) ~~Introducing~~ a reagent A containing conjugate species ~~(N2h-L1i: h and i each independently being an integer)~~ each composed of one of a plurality of second nucleic acid species ~~(N2h: h being an integer)~~, which has a base sequence at least complementary to the corresponding species among the plurality of first nucleic acid species ~~(N1g: g being an integer)~~ immobilized each independently in a capturing zone, and one of a plurality of first ligand species ~~(L1i: i being an integer)~~ capable of specifically binding to the one or more biological substance species ~~(Ok: k being an integer)~~ and the one or more marker-carrying biological substance species, either after mixing together for conjugate formation or while allowing conjugate formation, into the passage in the analytical device contained in the analytical kit;

allowingiv) ~~Allowing~~ the formation of conjugate species ~~(N1g-N2h-L1i-Ok-M1: (wherein g, h, i, k and l are each independently being an integer)~~, immobilized each independently, from species to species, by specific binding between the plurality of first nucleic acid species (N1g: g being an integer) ~~immobilized each independently, from species to species, in the capturing zone~~ and the plurality of second nucleic acid species ~~(N2h: h being an integer)~~ and specific binding between the plurality of first ligand species ~~(L1i: i being an integer)~~ and the at least one or more biological substance species ~~(Ok: k being an integer)~~;

assayingv) ~~Assaying~~ the at least one or more biological substance species ~~(Ok: k being an integer)~~ by detecting ~~assaying~~

the one or more marker species ~~(M1: l being an integer)~~ contained in the plurality of immobilized conjugate species ~~(N1g-N2h-L1i-Ok-M1: g, h, i, j, k and l each independently being an integer)~~.

43. (Currently amended) An analytical method using the kit according to claim 8, the method comprising the following elements i) to v):

~~i) Using the kit according to Claim 8;~~

preparing ii) ~~Preparing in advance one or more marker-carrying biological substance species (Ok-M1: k and l each independently being an integer) from a liquid sample suspected of containing the occurrence therein of one or more biological substance species (Ok: k being an integer) by introduction of one or more marker species (M1: l being an integer) into the liquid sample those biological substance species;~~

introducing the iii) ~~Introducing a reagent A containing conjugate species (N2h-L1i: h and i each independently being an integer) each composed of one of a plurality of second nucleic acid species (N2h: h being an integer), which has a base sequence at least complementary to the corresponding species among the plurality of first nucleic acid species (N1g: g being an integer) immobilized each independently in a capturing zone, and one of a plurality of first ligand species (L1i: i being an integer) capable of specifically binding to the one or more biological substance species (Ok: k being an integer) and the~~

~~one or more marker carrying biological substance species, individually without mixing together, into the passage in the analytical device contained in the analytical kit;~~

~~allowingiv) Allowing the formation of conjugate species (N1g-N2h-L1i-Ok-M1÷ (wherein g, h, i, k and l are each independently being an integer), each immobilized each independently, from species to species, by specific binding between the plurality of first nucleic acid species (N1g: g being an integer) immobilized each independently, from species to species, in the capturing zone and the plurality of second nucleic acid species (N2h: h being an integer) and specific binding between the plurality of first ligand species (L1i: i being an integer) and the one or more biological substance species (Ok: k being an integer); and~~

~~assayingv) Assaying the one or more biological substance species (Ok: k being an integer) by detectingassaying the one or more marker species (M1: l being an integer) contained in the plurality of immobilized conjugate species (N1g-N2h-L1i-Ok-M1: g, h, i, j, k and l each independently being an integer).~~

44. (Currently amended) An analytical method using the analytical kit according to claim 9, the method comprising the following elements i) to iv):

~~i) Using the analytical kit according to Claim 9;~~

mixingii) Introducing the following materials a and b to form a mixture specified below, either after mixing together

~~for conjugate formation or while allowing conjugate formation,  
into the passage in the analytical device contained in the  
analytical kit:~~

a. aA liquid sample suspected of containing the  
~~occurrence therein of~~ one or more biological substance species  
~~(Ok: k being an integer),~~

b. theA reagent B~~containing conjugate species (L2j-Ml:  
j and l each independently being an integer) resulting from direct  
binding between one or more second ligand species (L2j: j being  
an integer) capable of specifically binding to the corresponding  
species among the one or more biological substance species (Ok:  
k being an integer) and one or more marker species (Ml: l being  
an integer);~~

introducing the mixture into the passage in the analytical  
device contained in the analytical kit;

allowing~~iii)~~——Allowing the formation of conjugate  
species  $\{N1g-N2h-L1i-Ok-L2j-Ml\}$  (wherein g, h, i, j, k and l  
are each independently being an integer), immobilized each  
independently, from species to species, by specific binding  
between the plurality of first ligand species ~~(L1i: i being an  
integer)~~ in the conjugate species  $\{N1g-N2h-L1i\}$  ~~g, h and i each  
independently being an integer)~~ immobilized each independently,  
~~from species to species, in the capturing zone in the analytical  
device and the one or more biological substance species (Ok:  
k being an integer) and specific binding between the one or more  
second ligand species (L2j: j being an integer) in the conjugate  
species (L2j-Ml: j and l each independently being an integer)~~



~~in the reagent and the one or more biological substance species  
(Ok: k being an integer); and~~

~~assayingiv) Assaying the one or more biological substance  
species (Ok: k being an integer) by detectingassaying the one  
or more marker species (Ml: l being an integer) contained in  
the plurality of immobilized conjugate species  
(N1g-N2h-L1i-Ok-L2j-Ml: g, h, i, j, k and l each independently  
being an integer).~~

45. (Currently amended) An analytical method using the  
analytical kit according to claim 9, the method comprising the  
following elements i) to iv):

~~i) Using the analytical kit according to Claim 9;~~

~~introducingii) Introduceing the following materials a  
and b individually, without mixing together, into the passage  
in the analytical device contained in the analytical kit:~~

a. a liquid sample suspected of containing the  
~~occurrence therein of one or more biological substance species  
(Ok: k being an integer),~~

b. a reagent B containing conjugate species ~~(L2j-Ml:  
j and l each independently being an integer) resulting from  
binding between one or more second ligand species (L2j: j being  
an integer) capable of specifically binding to the corresponding  
species among the one or more biological substance species (Ok:  
k being an integer) and one or more marker species (Ml: l being  
an integer);~~

~~allowingiii) Allowing the formation of conjugate~~



species  $\{N1g-N2h-L1i-Ok-L2j-Ml\}$  (wherein  $g, h, i, j, k$  and  $l$  are each independently being an integer), each immobilized each independently, from species to species, by specific binding between the plurality of first ligand species  $\{L1i: i \text{ being an integer}\}$  in the conjugate species  $\{N1g-N2h-L1i: g, h \text{ and } i \text{ each independently being an integer}\}$  immobilized each independently, from species to species, in the capturing zone in the analytical device and the one or more biological substance species  $\{Ok: k \text{ being an integer}\}$  and specific binding between the one or more second ligand species  $\{L2j: j \text{ being an integer}\}$  in the conjugate species  $\{L2j-Ml: j \text{ and } l \text{ each independently being an integer}\}$  in the reagent and the one or more biological substance species  $\{Ok: k \text{ being an integer}\}$ ; and

assayingiv) Assaying the one or more biological substance species  $\{Ok: k \text{ being an integer}\}$  by detecting assaying the one or more marker species  $\{Ml: l \text{ being an integer}\}$  contained in the plurality of immobilized conjugate species  $\{N1g-N2h-L1i-Ok-L2j-Ml: g, h, i, j, k \text{ and } l \text{ each independently being an integer}\}$ .

46. (Currently amended) An analytical method using the analytical kit according to claim 10, the method comprising the following elements ~~i) to iv)~~:

~~i) Using the analytical kit according to Claim 10;~~

mixingi) ~~Introducing~~ two or more of the following materials  $a, b$  and  $c$  ~~specified below~~, either after ~~mixing together~~ in advance for conjugate formation or while allowing conjugate

formation, to form a mixture;

~~into the passage in the analytical device contained in the analytical kit, followed by introduction of the remaining material, if any, into the passage:~~

a. aA liquid sample suspected of containing the ~~occurrence therein of~~ one or more biological substance species ~~( $0k$ :  $k$  being an integer)~~ to be assayed,

b. theA reagent B' containing one or more second ligand species ~~( $L2j$ :  $j$  being an integer)~~ each ~~capable of specifically binding to the corresponding one among the one or more biological substance species~~ ~~( $0k$ :  $k$  being an integer)~~ to be assayed,

c. theA reagent C containing the conjugate species ~~( $L3m-Ml$ :  $m$  and  $l$  each independently being an integer)~~ each composed of one of one or more third ligand species ~~( $L3m$ :  $m$  being an integer)~~, which is capable of specifically binding to the corresponding species among the second ligand species ~~( $L2j$ :  $j$  being an integer)~~, and one of one or more marker species ~~( $Ml$ :  $l$  being an integer)~~;

introducing the mixture into the passage in the analytical device followed by introduction of the remaining material a, b and c, if any, into the passage;

allowing~~iii)~~ ~~Allowing~~ the formation of immobilized conjugate species ~~( $N1g-N2h-L1i-0k-L2j-L3m-Ml$ : wherein  $g$ ,  $h$ ,  $i$ ,  $j$ ,  $k$ ,  $l$  and  $m$  are each independently being an integer)~~ by specific binding between the first ligand species ~~( $L1i$ :  $i$  being an integer)~~ in the conjugate species ~~( $N1g-N2h-Mli$ :  $g$ ,  $h$  and  $i$  each independently being an integer)~~ immobilized each

~~independently, from species to species, immobilized in the capturing zone in the analytical device and the biological substance species  $\{O_k: k \text{ being an integer}\}$ , specific binding between the second ligand species  $\{L_{2j}: j \text{ being an integer}\}$  and the biological substance species  $\{O_k: k \text{ being an integer}\}$  and specific binding between the second ligand species  $\{L_{2j}: j \text{ being an integer}\}$  and the third ligand species  $\{L_{3m}: m \text{ being an integer}\}$ ;~~

~~assayingiv) Assaying the one or more biological substance species  $\{O_k: k \text{ being an integer}\}$  by detectingassaying the one or more marker species  $\{M_l: l \text{ being an integer}\}$  contained in the immobilized conjugate species  $\{N_{1g}-N_{2h}-L_{1i}-O_k-L_{2j}-L_{3m}-M_l: g, h, i, j, k, l \text{ and } m \text{ each independently being an integer}\}$ .~~

47. (Currently amended) An analytical method using the analytical kit according to claim 10, the method ~~comprising the following elements i) to iv):~~

~~i) Using the analytical kit according to Claim 10;~~

~~introducingii) Introducing the following materials a, b and c individually, without mixing together, into the passage in the analytical device contained in the analytical kit:~~

a. ~~a~~Aliquid sample suspected of containingthe occurrence therein of one or more of the biological substance species  $\{O_k: k \text{ being an integer}\}$  to be assayed,

b. theA reagent B' containing the one or more second ligand species  $\{L_{2j}: j \text{ being an integer}\}$  each capable of specifically binding to the corresponding one among the one or more biological substance species  $\{O_k: k \text{ being an integer}\}$  to be assayed,

c. theA reagent C containing the conjugate species ~~{L3m-Ml: m and l each independently being an integer}~~ each composed of one of one or more third ligand species ~~{L3m: m being an integer}~~, which is capable of specifically binding to the corresponding species among the second ligand species ~~{L2j: j being an integer}~~, and one of one or more marker species ~~{Ml: l being an integer}~~;

allowingiii) ~~Allowing~~ the formation of immobilized conjugate species ~~{N1g-N2h-L1i-Ok-L2j-L3m-Ml: (wherein g, h, i, j, k, l are and each independently being an integer)}~~ by specific binding between the first ligand species ~~{L1i: i being an integer}~~ in the conjugate species ~~{N1g-N2h-Mli: g, h and i each independently being an integer}~~ immobilized each independently, ~~from species to species, in the capturing zone in the analytical device~~ and the biological substance species ~~{Ok: k being an integer}~~, specific binding between the second ligand species ~~{L2j: j being an integer}~~ and the biological substance species ~~{Ok: k being an integer}~~ and specific binding between the second ligand species ~~{L2j: j being an integer}~~ and the third ligand species ~~{L3m: m being an integer}~~; and

assayingiv) ~~Assaying~~ the one or more biological substance species ~~{Ok: k being an integer}~~ by detecting~~assaying~~ the one or more marker species ~~{Ml: l being an integer}~~ contained in the immobilized conjugate species ~~{N1g-N2h-L1i-Ok-L2j-L3m-Ml: g, h, i, j, k, l and m each independently being an integer}~~.

48. (Currently amended) An analytical method using the

analytical kit according to claim 18, the method comprising the following elements ~~i) to v)~~:

~~i) Using the analytical device according to Claim 18;~~

preparingii) ~~Preparing~~ in advance a marker-carrying biological substance  $\{O-M\}$  from a liquid sample suspected of ~~containingthe occurrence therein of~~ a biological substance (O) by introduction of a marker (M) thereinto;

introducingiii) ~~Introduceing~~ the marker-carrying biological substance  $\{O-M\}$  into the **p a s s a g e** i n the analytical device;

allowingiv) ~~Allowing~~ the formation of an immobilized conjugate  $\{N1-N2-L1-O-M\}$  by specific binding between the first ligand  $\{L1\}$  in the conjugate  $\{L1-N2\}$  ~~composed of the first ligand  $\{L1\}$  and second nucleic acid  $\{N2\}$  and~~ immobilized in the capturing zone ~~in the analytical device and~~ the biological substance (O) in the marker-carrying biological substance  $\{O-M\}$ ; and

assayingv) ~~Assaying~~ the biological substance (O) by ~~detecting~~assaying the marker (M) contained in the immobilized conjugate  $\{N1-N2-L1-O-M\}$ .

49. (Currently amended) An analytical method using the analytical kit according to claim 19, the method comprising the following elements ~~i) to v)~~:

~~i) Using the analytical device according to Claim 19;~~

preparingii) ~~Preparing~~ in advance one or more marker-carrying biological substance species  $\{O_k-M_l\}$  (wherein k and l are each independently being an integer) from a liquid

sample suspected of containing~~the occurrence therein of~~ one or more of the biological substance species ~~(Ok: k being an integer)~~ by introduction of one or more markers ~~marker~~ ~~(Ml: l being an integer)~~ thereinto;

introducing~~iii)~~ ~~Introducing~~ the marker-carrying biological substance species ~~(Ok-Ml: k and l each independently being an integer)~~ into the passage in the analytical device;

allowing~~iv)~~ ~~Allowing~~ the formation of immobilized conjugate species ~~(N1g-N2h-L1i-Ok-Ml: wherein g, h, i, k and l are each independently being an integer)~~ by specific binding between the plurality of first ligand species ~~(L1i: i being an integer)~~ ~~immobilized each independently, from species to species,~~ in the capturing zone ~~in the analytical device and the one or more biological substance species (Ok: k being an integer) in the one or more marker-carrying biological substance species (Ok-Ml: k and l each independently being an integer); and~~

assaying~~v)~~ ~~Assaying~~ the one or more biological substance species ~~(Ok: k being an integer)~~ by detecting~~assaying~~ the one or more marker species ~~(Ml: l being an integer)~~ contained in the immobilized conjugate species ~~(N1g-N2h-L1i-Ok-Ml: g, h, i, k and l each independently being an integer).~~

50. (Canceled)

51. (Currently amended) A method of preparing an analytical device comprising~~devices which is characterized by:~~

preparing~~(1)~~ ~~Preparing~~ a first member having a groove,

1  $\mu\text{m}$  to 5 mm width and 1  $\mu\text{m}$  to 750  $\mu\text{m}$  depth in cross-section, and a second member capable of covering the groove, wherein the groove forms ~~is~~ a portion of ~~to become~~ a passage upon joining the first member and second member together and one of the first member and second member or both have a passage inlet and a passage outlet,

immobilizing ~~(2) Immobilizing~~ a nucleic acid (N), having an arbitrary base sequence, at a site on a portion the first member and/or second member forming the passage, to form ~~become~~ a zone for capturing a biological substance to be assayed ~~in a portion to become a passage on the first member and/or second member,~~

then ~~(3) Then,~~ joining the first member and second member together by thermal fusion or with an adhesive to give an assembly with the passage formed therein,

introducing into the passage ~~(4) Introducing~~ a reagent A containing a conjugate (N2-L1) composed of a second nucleic acid (N2) having a base sequence at least complementary to the base sequence of the first nucleic acid (N1) which is immobilized in the capturing zone and a first ligand (L1) capable of specifically binding to a biological substance to be assayed ~~into the passage in the assembly,~~ and

allowing the conjugate (N2-L1) to specifically bind, for immobilization thereof, to the first nucleic acid (N1) in the capturing zone.

52. (Currently amended) A method of preparing an analytical



device comprising devices which is characterized by:

preparing(1) ~~Preparing~~ a first member having a groove, 1  $\mu$ m to 5 mm width and 1  $\mu$ m to 750  $\mu$ m depth, and a second member capable of covering the groove, wherein the groove forms ~~is~~ a portion of ~~to become~~ a passage upon joining the first member and second member together and one of the first member and second member or both have a passage inlet and a passage outlet,

immobilizing(2) ~~Immobilizing~~ a plurality of first nucleic acid species ( $N1g$ :  $g$  being an integer) each having an arbitrary base sequence, ~~each independently,~~ at independent sites forming ~~a site to become~~ a zone within the passage for capturing one or more biological substance species to be assayed ~~within a portion to become a passage on the first member and/or second member,~~

then(3) ~~Then,~~ joining the first member and second member together by thermal fusion or with an adhesive to give an assembly with thea passage formed therein,

introducing into the passage(4) ~~Introducing~~ a reagent A containing conjugate species ( $N2h-L1i$ : wherein  $h$  and  $i$  are each ~~independently being~~ an integer), each composed of one of a plurality of second nucleic acid species ( $N2h$ :  $h$  being an integer), each second nucleic acid species having ~~which has~~ a base sequence at least complementary to the base sequence of a ~~the~~ corresponding species of ~~among~~ the plurality of first nucleic acid species ( $N1g$ :  $g$  being an integer) immobilized in the capturing zone, and one of a plurality of first ligand species

(L<sub>1i</sub>: i being an integer), each first ligand species being~~which~~  
~~is~~ capable of specifically binding to a~~the~~ corresponding species  
of the~~among~~ one or more biological substance species to be assayed  
~~into the passage in the assembly,~~ and

allowing the plurality of conjugate species ~~(N<sub>2h</sub>-L<sub>1i</sub>: h~~  
~~and i each independently being an integer)~~ to specifically bind,  
for immobilization thereof, to the plurality of first nucleic  
acid species previously immobilized~~(N<sub>1g</sub>: g being an integer)~~  
in the capturing zone.

53. (Canceled)

54. (Original) A method of preparing analytical devices as  
set forth in Claim 51 or 52, wherein the biological substance  
or substances and/or first ligand (L<sub>1</sub>) or ligands are selected  
from among immunological substances, receptors and nucleic  
acids.

55. (Canceled)

56. (Canceled)

57. (Canceled)